1. **Project Title**: GREEN WATER MANAGEMENT FOR SUSTAINABLE AGRICULTURE IN DROUGHT ZONES OF LAOSdddd
2. **Contact person and email**:

Dr Nivong Sipaseuth, email: sinavong@gmail.com

Thisadee Chounlamountry, email: thisadeec@hotmail.com

Department of Agriculture Land Management (DALaM)

Mobile phone: (+856) 2055133550

1. Catchy Caption/Slogan: Water and Soil is life, conserve it
2. Location of the project:
3. Khammuon province

[https://www.google.la/maps/place/Khammouane+Province/@17.6250697,104.585211,296990m/data=!3m1!1e3!4m5!3m4!1s0x31394e912b041533:0xf4c3a45264b6d1e1!8m2!3d17.6384066!4d105.2194808?hl=en](https://www.google.la/maps/place/Khammouane%2BProvince/%4017.6250697%2C104.585211%2C296990m/data%3D%213m1%211e3%214m5%213m4%211s0x31394e912b041533%3A0xf4c3a45264b6d1e1%218m2%213d17.6384066%214d105.2194808?hl=en)

Sebanfai District

Nongbok District

1. Savanakhet province

[https://www.google.la/maps/place/Savannakhet+Province/@16.496921,105.203283,173358m/data=!3m2!1e3!4b1!4m5!3m4!1s0x313dc60688062c13:0xff13318c5ce5dc74!8m2!3d16.5065381!4d105.5943388?hl=en](https://www.google.la/maps/place/Savannakhet%2BProvince/%4016.496921%2C105.203283%2C173358m/data%3D%213m2%211e3%214b1%214m5%213m4%211s0x313dc60688062c13%3A0xff13318c5ce5dc74%218m2%213d16.5065381%214d105.5943388?hl=en)

Kaison District

[https://www.google.la/maps/place/Savannakhet/@16.5669366,104.69803,21662m/data=!3m2!1e3!4b1!4m13!1m7!3m6!1s0x313dc60688062c13:0xff13318c5ce5dc74!2sSavannakhet+Province!3b1!8m2!3d16.5065381!4d105.5943388!3m4!1s0x313dc5e0e65d9353:0xd7aa0b924e1d8a3f!8m2!3d16.5717065!4d104.7711182?hl=en](https://www.google.la/maps/place/Savannakhet/%4016.5669366%2C104.69803%2C21662m/data%3D%213m2%211e3%214b1%214m13%211m7%213m6%211s0x313dc60688062c13%3A0xff13318c5ce5dc74%212sSavannakhet%2BProvince%213b1%218m2%213d16.5065381%214d105.5943388%213m4%211s0x313dc5e0e65d9353%3A0xd7aa0b924e1d8a3f%218m2%213d16.5717065%214d104.7711182?hl=en)

Champhon District

Songkhon District

1. Salavan province

[https://www.google.la/maps/place/Salavan+Province/@15.88333,105.7866599,146628m/data=!3m1!1e3!4m5!3m4!1s0x311558d39704508b:0x3d025666be56beb0!8m2!3d15.8171073!4d106.2522143?hl=en](https://www.google.la/maps/place/Salavan%2BProvince/%4015.88333%2C105.7866599%2C146628m/data%3D%213m1%211e3%214m5%213m4%211s0x311558d39704508b%3A0x3d025666be56beb0%218m2%213d15.8171073%214d106.2522143?hl=en)

Lakhonpeng

[https://www.google.la/maps/place/Lakhonepheng/@15.9388392,105.3444025,5433m/data=!3m2!1e3!4b1!4m5!3m4!1s0x3115f507b91d9e17:0xa286dc20792d21cc!8m2!3d15.9375242!4d105.3628846?hl=en](https://www.google.la/maps/place/Lakhonepheng/%4015.9388392%2C105.3444025%2C5433m/data%3D%213m2%211e3%214b1%214m5%213m4%211s0x3115f507b91d9e17%3A0xa286dc20792d21cc%218m2%213d15.9375242%214d105.3628846?hl=en)

1. Project Summary

The Green Water Management (GWM) project is the first project of Core Agricultural Support Program Phase 2 (CASP2) under ADB TA 8163 to systematically address gaps in institutional and individual capacity in affected rural communities to manage agricultural water resources in a climate change affected situations. The main objective of the GWM project is to increase adaptive capacity of the small holder farmers to be able to utilize the rain water harvesting in order to increase vegetable and crop productivity and production, enhance food security, and promote market linkages for livelihood enhancement of farmers. The project is under output 3 of the program which aims at increasing adoption of gender-responsive and climate- friendly agriculture (CFA). Hence, gender issues in a specific context have been taken into consideration from program and project design to project planning and implementation. Women will be given priority whenever possible and applicable.

This project aims at introducing soil and green water management (rainwater harvesting and soil moisture management technologies) to 300target farmers including secondary school and agricultural college students (35% women) in Khammoun, Savannakhet and Saravane Provinces in Lao PDR**.** The project will establish model organic farms with the aim of disseminating green water management technique/rain water harvesting and best soil moisture management methods to local farming communities. The program has well acknowledged women’s roles and contribution in the agriculture sector. Thus, women will directly involve in the whole project cycle and actively participating in in decision making processes, project implementation and resource management.

Table 1. List of demonstration farms and owners

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Location** | **Owner Land** | **Map location** | **Implemented Activities** |
| 1 | Kudchab villageNongbok DistrictKhammuon Province | C:\Users\WINDOWS\Desktop\Donkhiew Village\Nongbok district\Pic koudjup\IMG_2705.JPGMr. BounchanKhemmalath | D:\GWM Project\FIELD SURVEY\Khammuan\Nongbok district\Map koudjup\Area mr bounchanh.jpg | 1) paddy rice; vegetables (regarding to local market); 3) Forage (B. ruzi+S. guianensis) ; 4) integrated cropping systems (fruit trees with one month banana and vegetables); 5) fish pond and 6) organic fertilizer production including water, soil and nutrient management |
| 2 | Kudchab villageNongbok DistrictKhammuon Province | C:\Users\WINDOWS\Desktop\Donkhiew Village\Nongbok district\Pic koudjup\IMG_2668.JPGMr. Boundo | C:\Users\WINDOWS\Desktop\Donkhiew Village\Nongbok district\Map koudjup\Area mr boudor.jpg | 1) paddy rice; vegetables (regarding to local market); 3) Forage (B. ruzi+S. guianensis) ; 4) integrated cropping systems (fruit trees with one month banana and vegetables); 5) fish pond and 6) organic fertilizer production including water, soil and nutrient management |
| 3 | Donkhiew villageNongbok DistrictKhammuon Province | C:\Users\WINDOWS\Desktop\Donkhiew Village\Nongbok district\Pic donkhiew\IMG_2609.JPGMr. Vinit | D:\GWM Project\FIELD SURVEY\Khammuan\Nongbok district\Map donkhiew\Area mr vinit.jpg | 1) paddy rice; vegetables (regarding to local market); 3) Forage (B. ruzi+S. guianensis) ; 4) integrated cropping systems (fruit trees with one month banana and vegetables); 5) fish pond and 6) organic fertilizer production including water, soil and nutrient management |
| 4 | Noy villageSebangfai DistrictKhammuon Province | Mr Chanon |  | 1) paddy rice; vegetables (regarding to local market); 3) Forage (B. ruzi+S. guianensis) ; 4) integrated cropping systems (fruit trees with one month banana and vegetables); 5) fish pond and 6) organic fertilizer production including water, soil and nutrient management |
| 5 | Noy villageSebangfai DistrictKhammuon Province | Mr Doungmany |  |
| 6 | Sok villageKaison DistrictSavannakhet Province | Mr. Thongsi |  | 1) paddy rice; vegetables (regarding to local market); 3) Forage (B. ruzi+S. guianensis) ; 4) integrated cropping systems (fruit trees with one month banana and vegetables); 5) fish pond and 6) organic fertilizer production including water, soil and nutrient management |
| 7 | Phai villageChamphone DistrictSavannakhet Province | C:\Users\WINDOWS\Desktop\Data field visits for GWM\Savannakheth\Champhone district\Pic champhone\IMG_2933.JPGMr SesavanBangphachan | D:\GWM Project\FIELD SURVEY\Savannakheth\Champhone district\Map champhone\Area mr sisavanh.jpg | 1) paddy rice; vegetables (regarding to local market); 3) Forage (B. ruzi+S. guianensis) ; 4) integrated cropping systems (fruit trees with one month banana and vegetables); 5) fish pond and 6) organic fertilizer production including water, soil and nutrient management |
| 8 | Phai villageChamphone DistrictSavannakhet Province | Mr. Ki | D:\GWM Project\FIELD SURVEY\Savannakheth\Champhone district\Map champhone\village land.jpg | 1) paddy rice; vegetables (regarding to local market); 3) Forage (B. ruzi+S. guianensis) ; 4) integrated cropping systems (fruit trees with one month banana and vegetables); 5) fish pond and 6) organic fertilizer production including water, soil and nutrient management |
| 9 | Paksong villageSongkhon DistrictSavannakhet Province | Mr. Pheng |  | 1) paddy rice; vegetables (regarding to local market); 3) Forage (B. ruzi+S. guianensis) ; 4) integrated cropping systems (fruit trees with one month banana and vegetables); 5) fish pond and 6) organic fertilizer production including water, soil and nutrient management |
| 10 | Kaison DistrictSavannakhet Province | D:\GWM Project\FIELD SURVEY\Savannakheth\University savan\Pic USK\IMG_2969.JPGSavannaket University | D:\GWM Project\FIELD SURVEY\Savannakheth\University savan\Map USK\Area GWM.jpg | 1) organic fertilizer testing with vegetables (compost, manure, biochar and others) ; 2) intergrated between crop and livestock ; 3) cash crop systmes (rice, sugarcan, maize, cassava integrated with legumes) |
| 11 | Khonsay villageRakhonpheng DistrictSalavan Province | C:\Users\WINDOWS\Desktop\Data field visits for GWM\Salavanh\Pic lakhonepneng\IMG_3175.JPGMr. Vay | D:\GWM Project\FIELD SURVEY\Salavanh\Map lakhonepheng\Area mr vai.jpg | 1) paddy rice; vegetables (regarding to local market); 3) Forage (B. ruzi+S. guianensis) ; 4) integrated cropping systems (fruit trees with one month banana and vegetables); 5) fish pond and 6) organic fertilizer production including water, soil and nutrient management |
| 12 | Houykaphoxay villageRakhonpheng DistrictSalavan Province | D:\GWM Project\FIELD SURVEY\Salavanh\Pic lakhonepneng\IMG_3141.JPGMrs. Saisamone | D:\GWM Project\FIELD SURVEY\Salavanh\Map lakhonepheng\Area mrs saysamone.jpg | 1) paddy rice; vegetables (regarding to local market); 3) Forage (B. ruzi+S. guianensis) ; 4) integrated cropping systems (fruit trees with one month banana and vegetables); 5) fish pond and 6) organic fertilizer production including water, soil and nutrient management |
| 13 | Houykaphoxay villageRakhonpheng DistrictSalavan Province | C:\Users\WINDOWS\Desktop\Data field visits for GWM\Salavanh\Pic lakhonepneng\IMG_3117.JPGMrs. Udtala | D:\GWM Project\FIELD SURVEY\Salavanh\Map lakhonepheng\Area mrs outala1.jpg | 1) paddy rice; vegetables (regarding to local market); 3) Forage (B. ruzi+S. guianensis) ; 4) integrated cropping systems (fruit trees with one month banana and vegetables); 5) fish pond and 6) organic fertilizer production including water, soil and nutrient management |
| 14 | Houykaphoxay villageRakhonpheng DistrictSalavan Province | Mr. May |  | 1) paddy rice; vegetables (regarding to local market); 3) Forage (B. ruzi+S. guianensis) ; 4) integrated cropping systems (fruit trees with one month banana and vegetables); 5) fish pond and 6) organic fertilizer production including water, soil and nutrient management |

1. GWM Model in Lao PDR

Divided the field into 4 parts (ratio 30:30:30:10) including

* 30 Pond
* Water saving for all year round
* Fish Aquaculture to increase more income
* At the edge of the pond growing vetiver grass to protect soil erosion
* 30 Paddy Field
* One crop/year
* Storage for year round consumption
* 30 Trees/crops
* Fruits trees
* Perennial trees
* Annual trees
* Herb and spice
* Multi-purpose trees
* Field crops
* 10 Residential
* Other activities: vegetable, herb, mushroom, livestock